



**Fit-For-Purpose Land Administration**  
*in Support of the Post 2015 Global Agenda*

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**Annual World Bank Conference on Land and Poverty 2015**

**FIT-FOR-PURPOSE LAND ADMINISTRATION**  
**in Support of the Post 2015 Global Agenda**

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## **Abstract**

The term “Fit-For-Purpose Land Administration” indicates that the approach used for building land administration systems in less developed countries should be flexible and focused on serving the purpose of the systems (such as providing security of tenure and control of land use) rather than focusing on top-end technical solutions and high accuracy surveys. Of course, such flexibility allows for land administration systems to be incrementally improved over time. This paper unfolds the Fit-For-Purpose concept by analyzing the three core components:

*The spatial framework* (large scale land parcel mapping) should be provided using affordable modern technologies such aerial imageries rather than field surveys.

*The legal framework* must support both legal and social tenure, and the regulations must be designed along administrative rather than judicial lines. The fit-for-purpose approach must be enshrined in law.

*The institutional framework* is often a major obstacle. The fit-for-purpose approach includes by default issues like good governance, participatory approaches and building from local strengths and norms.

This paper argues that the fit-for-purpose approach to building land administration systems in less developed countries is fundamental for meeting the upcoming post 2015 global agenda.

## **Key Words**

Fit-For-Purpose, Land administration, Global agenda

## 1. INTRODUCTION

Arguably sound land governance is fundamental to achieve sustainable development and for meeting the global agenda currently set by the Millennium Development Goals (MDGs) and to be replaced by the Post 2015 Global Agenda. Land governance is about the policies, processes and institutions by which land, property and natural resources are managed. The operational component of land governance is the country specific land administration systems dealing with the four key functions of land tenure, land value, land, and land development. This paper presents an overall understanding of land administration in this global perspective and in support of the upcoming Post 2015 Global Agenda.

In the more developed (Western) world, the systems for governing and administering land issues have evolved over centuries to cope with cultural and economic development. Looking at the less developed world, and especially in the Sub-Saharan Africa region, the basic systems of land administration are not in place or serve only the elite. In such cases, there is a need to improve the land governance tools to cope with current and future challenges as being set by the Post 2015 Global Agenda. The concept of “Fit-for-Purpose Land Administration” (FIG/WB 2014) has emerged to meet these challenges.

The Fit-For-Purpose Approach to building Land Administration Systems has been developed in partnership between the International Federation of Surveyors (FIG) and the World Bank (WB) in response to the problem that about 75 per cent of the about 6 billion land parcels worldwide are not formally registered. The lessons from trying to implement Western style systems in less developed countries have not been too successful. These systems tend to require high accuracy field surveys and with a key focus on land titling, rather than the various kind of social tenure that are predominantly found in local communities. The systems are too costly, take too long time to establish, and are too demanding in terms of survey accuracy and the capacity of professional personnel. The Western style systems are simply not fit for the purpose of providing secure tenure for all and enabling countrywide control of the use of land and natural resources in less developed countries. Therefore, the Western style systems may well be seen as the end target – but not as the point of entry.

The term “Fit-For-Purpose Land Administration” indicates that the approach used for building land administration systems in less developed countries should be flexible and focused on serving the purpose of the systems (such as providing security of tenure and control of land use) rather than focusing on top-end technical solutions and high accuracy surveys. Of course, such flexibility allows for land administration systems to be incrementally improved over time. The core elements of the Fit-For-Purpose approach are laid down in joint FIG/WB declaration as follows:

***FIG-World Bank Declaration on  
Fit-for-Purpose Land Administration***

There is an urgent need to build cost-effective and sustainable systems which identify the way land is occupied and used and accordingly provide for secure land rights. When considering the resources and capacities required for building such systems in less developed countries, the concepts of mature, sophisticated systems as predominantly used in developed countries may well be seen as the end target, but not as the point of entry. When assessing technology and investment choices, the focus should be on a "fit-for-purpose approach" that will meet the needs of society today and that can be incrementally improved over time.

A fit-for-purpose approach includes the following elements:

- **Flexible** in the spatial data capture approaches to provide for varying use and occupation.
- **Inclusive** in scope to cover all tenure and all land.
- **Participatory** in approach to data capture and use to ensure community support.
- **Affordable** for the government to establish and operate and for society to use.
- **Reliable** in terms of information that is authoritative and up-to-date.
- **Attainable** to establish the system within a short timeframe and within available resources.
- **Upgradeable** with regard to incremental improvement over time in response to social and legal needs and emerging economic opportunities.

A country's legal and institutional framework must be revised to apply the elements of the fit-for-purpose approach. This means that the fit-for-purpose approach must be enshrined in law and that the information be made accessible to all users.

A fit-for-purpose approach will ensure that appropriate land administration systems are built within a relatively short time frame and affordable costs. The systems allow for incremental updating and upgrading. This approach will facilitate economic growth, social equity and environmental sustainability to be better supported, pursued and achieved.

Fig. 1. Joint FIG / WB declaration on Fit-For-Purpose Land Administration. (FIG/WB, 2014).

UN-Habitat/GLTN has decided to elaborate this approach further by initiating a project in cooperation with Dutch Kadaster on developing a Guide for Fit-For-Purpose Land Administration in collaboration with key partners. This guide should underpin the GLTN land tool development activities and enable implementation of sustainable land administration systems in less developed countries at scale. For this purpose this paper unfolds in more detail the three core components of the Fit-For-Purpose concept: the spatial-, the legal-, and the institutional framework.

## 2. LAND GOVERNANCE AND THE POST 2015 GLOBAL AGENDA

Land governance is about the policies, processes and institutions by which land, property and natural resources are managed. Sound land governance requires a legal regulatory framework and operational processes to implement policies consistently within a jurisdiction or country, in sustainable ways. Land administration systems provide a country with an infrastructure for implementing of land policies and land management strategies in support of sustainable development. Such a global perspective for land management and governance is shown in Fig. 2 below:

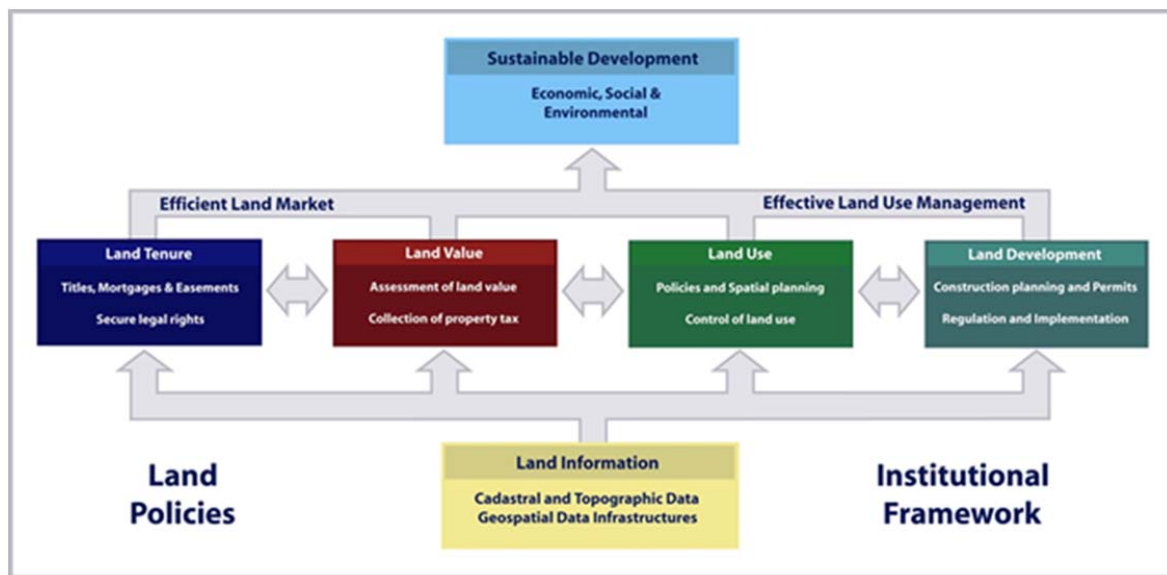


Figure 2: A global land management perspective (Enemark, 2005, Williamson et.al. 2010).

The operational component of the land management concept is the range of land administration functions that include the areas of: land tenure (securing and transferring rights in land and natural resources); land value (valuation and taxation of land and properties); land use (planning and control of the use of land and

natural resources); and land development (implementing utilities, infrastructure, and construction planning). These four functions interact to deliver overall policy objectives, and they are facilitated by appropriate land information infrastructures that include cadastral and topographic datasets linking the built and natural environment. Ultimately, the design of adequate systems of land tenure and land value should support efficient land markets, and adequate systems of land use control and land development should lead to effective land use management. The combination of efficient land markets and effective land use management are seen as a key component in delivering economic, social and environmental sustainability.

Sound land administration systems deliver a range of benefits to society in terms of: support of governance and the rule of law; alleviation of poverty; security of tenure; support for formal land markets; security for credit; support for land and property taxation; protection of state lands; management of land disputes; and improvement of land use planning and implementation. The systems enable the implementation of land policies to fulfil political and social objectives and to achieve sustainable development.

Good land governance should also be seen as a means of supporting the global agenda such as the Millennium Development Goals (UN, 2000) and the following Post 2015 Agenda on “Realizing the Future We Want for All” (UN, 2012). The vision includes “Transformative change towards inclusive, people-centred, sustainable development” based on three fundamental principles of Human Rights; Equality; and Sustainability. The integrated framework for realizing the Future we want for all” includes four core dimensions:



- *Inclusive social development*, including: adequate nutrition for all; quality education for all; reduced mortality and morbidity; gender equity, and universal access to clean water and sanitation.
- *Environmental sustainability*, including: protecting biodiversity; stable climate; and resilience to natural hazards.
- *Inclusive economic development*, including: eradicating income poverty and hunger; reducing inequalities; ensuring decent work and active employment; and ensuring access to land and natural resources
- *Peace and security*, including freedom from violence, conflict and abuse; and conflict-free access to natural resources.

The four core dimensions of the new agenda as presented above all call for systems of good land governance: “Inclusive social development” includes empowering people through land tenure security; “Environmental sustainability” includes improved land use planning and food security; “Inclusive economic development” includes access to land and natural resources; and “Peace and security” includes, amongst others, no land conflicts.

This proposed outline for a Post 2015 Global Agenda is designed to carry on the work of the Millennium Development Goals (MDGs) and integrate the social, economic and environmental dimensions of sustainable development. This also relates to the availability of reliable and robust data for devising appropriate policies and interventions for the achievement of the global goals and for holding governments and the international community accountable (UN, 2014). Such a monitoring framework is crucial for encouraging progress and enabling achievements at national, regional and global level. The Report of the High Level Panel of Eminent Persons on the Post 2015 Development Agenda (UN, 2013) also called for a “data revolution” for sustainable development to empower people with information on the progress towards the targets. The monitoring experience of the MDGs has shown that data will play a central role in advancing the new development agenda. We need sustainable data to support sustainable development (UN, 2014).

As an example, tenure security was originally included in the MDGs, but lack of globally comparable data at the time led to its replacement. Secure tenure is now included in the proposed Post 2015 Development Goal no 1b stating “Increase by x% the share of women and men, communities and businesses with secure tenure rights to land, property and other assets. Due to improved definitions and observation methods developed by UN-HABITAT, this target can now be monitored. However, the real need relates to building simple but sustainable land administration systems in developing countries to close of gap of up to 90% of the land and people being outside the formal systems. This also goes for several other of the 2015 development goals such as Goal 2 aiming at ensuring equal rights of women e.g. to own and inherit property; Goal 5 aiming at increased agricultural productivity and access to food; Goal 6 aiming at access to safe drinking water and sanitation; Goal 9 aiming at managing natural resource assets sustainably; and Goal 10 aiming at ensuring good governance and effective institutions (UN, 2013).

Good land governance is also essential for meeting the challenges of climate change and rapid urbanization that should be seen as part of the global agenda as well.



Climate change mitigation refers to efforts and means for reducing the anthropogenic drivers such as greenhouse gas emissions from human activities – especially by reducing emission of carbon dioxide (CO<sub>2</sub>) related to use of fossil fuel. On the other hand, adaptation to climate change can be achieved to a large extent through building sustainable and spatially enabled land administration systems. Such integrated land administration systems should include the perspective of possible future climate change and any consequent natural disasters. The systems should identify all areas prone to sea-level rise, drought, flooding, fires, etc. as well as measures and regulations to prevent the impact of predicted climate change (Enemark, 2014a).

Rapid urbanization with the continuing concentration of economic activities in cities is another component of the global agenda. It is inevitable and generally desirable. However, this increase in economic density needs to be balanced with environmental safeguarding through sustainable development policies and land policies needed to manage and connect megacities and their hinterlands holistically to maximize the significant economic and social benefits across the region. Rapid urbanization challenges the human right of access to land and shelter. It is recognized that over 70% of the growth currently happens outside of the formal planning process and that 30% of urban populations in less developed countries are living in slums or informal settlements. Slum upgrading approaches need to be more holistic and integrated into broader slum prevention shelter policies, and appropriate shelter policies. The agenda on sustainable cities is driven by UN-HABITAT through the State of the World's Cities Series (UN-Habitat, 2012). Sound land management, governance and administration are key measures to address these urban challenges.

There is a general consensus that governing the people to land relationship is in the heart of the global agenda. There is an urgent need to build simple and basic systems using a flexible and low cost approach to identifying the way land is occupied and used. When considering the resources and capacities required for building such systems and the connected basic spatial framework in less developed countries, the western concepts may well be seen as the end target but not as the point of entry. When assessing technology and investment choices the focus should be on a “fit-for-purpose approach” that will meet the needs of society today and that can be incrementally improved over time (FIG/WB, 2014). Building such frameworks will establish the link between people and land, and thereby enable management and monitoring of improvements in relation to meeting aims and objectives of adopted land policies as well as meeting the global agenda.

### 3. UNDERSTANDING THE FIT-FOR-PURPOSE APPROACH

The Fit-For-Purpose Approach essentially means that the process of building the systems should start by analyzing and defining the purpose(s) that the system should serve and then deciding on the adequate approach for meeting that purpose. This means that systems should be designed to meet / fit the purpose(s) rather than following some rigid regulations and demands for accuracy often imposed by colonial time and leading to systems that are unsustainable for less developed countries and serving only the elite.

The main purposes of the systems are normally identified as security of tenure, access to credit and investments, valuation and taxation, planning and control of land use and natural resources, and facilitating the process of land development. Land administration systems therefore need a spatial framework to operate which should identify the individual land parcels / plots / spatial units. This framework again should be established according to the purposes e.g. the need for accuracy will normally be higher in densely populated and high value urban areas than in open landscape, rural or mountainous areas. This discussion should identify the actual needs of the systems with regard to the different purposes. E.g. security of land tenure only need identification of the spatial unit and does not need boundary surveys per se. This also goes for the purpose of valuation and taxation. Planning and land use control merely need the combination of topographic mapping and land parcel mapping in order to identify existing land use and to plan for future development opportunities.

**Flexibility.** The FFP approach includes the flexibility to meet actual needs for specific locations. It is about flexibility in terms of demands for accuracy, demands for spatial information and recording of legal and social tenure, and in shaping the legal and institutional framework to accommodate societal needs. The FFP approach also includes the flexibility to meet the need for securing different kinds of tenure ranging from more social or customary tenure types to more formal types such as land use rights, leasehold and private ownership. More generally, the FFP approach directly supports what is called “Continuum of Continuums” (see below).

**Incremental improvement.** The systems should be designed for initially meeting the basic needs of society today and have the capability to be incrementally improved over time in response to social and legal needs of economic development, investments and also financial opportunities that may emerge over the longer term. Using a fit-for-purpose approach does not limit ambitions for an ultimate solution, e.g. solutions in line with some advanced systems used predominantly in developed countries.

**Continuum of Continuums.** Flexibility and incremental improvement also means that the fit-for-purpose concept directly supports what is called “continuum of continuums” (FIG/WB, 2014). This term has many dimensions: continuum of tenure relates to the variety of tenure from informal to more formal land rights; Parties holding the rights may not only be natural or legal persons but could be family, tribe, community, etc.; The spatial unit may not only be land parcels but can vary according to where the rights and social relationships apply; Land recording may vary from informal land offices in informal settlements to a governmental registry; The use of various data acquisition methods and opportunities for upgrading will include what could be called “continuum of accuracy”; And the ongoing improvement of land administration institution will provide a “continuum of services”.

### **The Fit-For-Purpose Concept.**

The concept includes three core components: the spatial, the legal, and the institutional framework. Each of these components includes the relevant flexibility to meet the actual needs of today and can be incrementally improved over time in response to societal needs and available financial resources. This means that the concept – in itself – represents a continuum. The concept is shown in Fig 2 below.

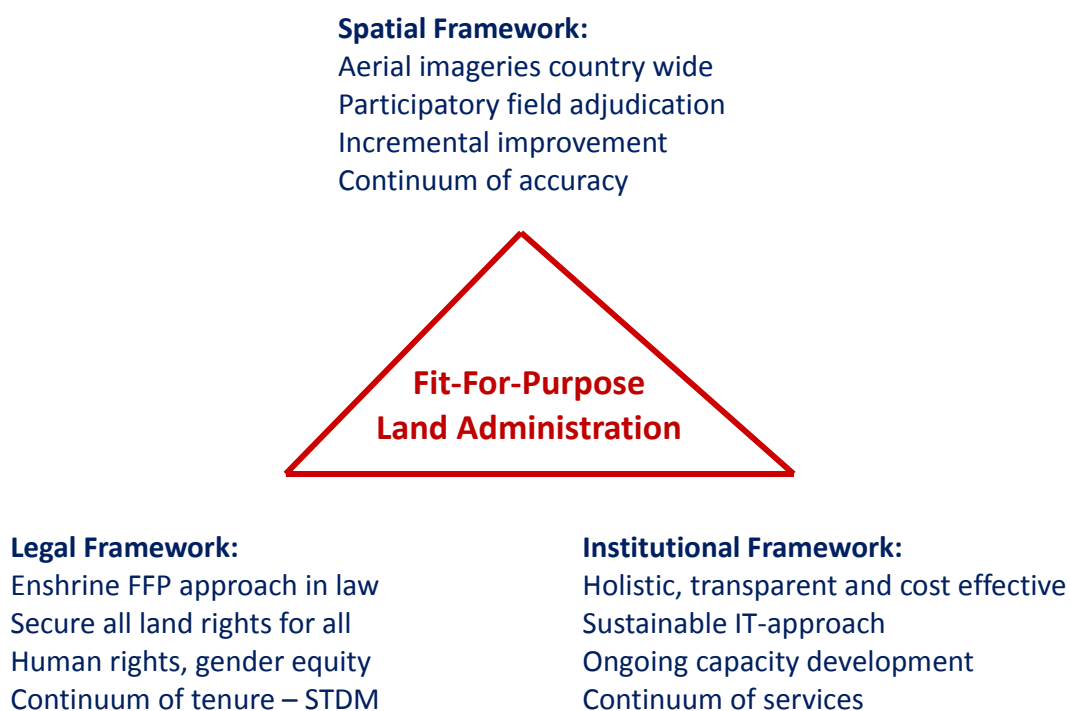


Fig 3. The Fit-For-Purpose Concept. (Enemark, 2014b).

The characteristics and principles of each of the three components are further elaborated in details in the sections below. The key point is that the systems should enable secure land rights for all and cover all land as a basis for land valuation and land use control. At the outset, the systems may vary from being very simplistic in some (rural) areas of the country while other (densely populated) areas are covered by more accurate and legally complete applications, especially where land is of high value and in short supply. Through updating and upgrading procedures the systems can then, in turn, develop into modern and fully integrated systems for land information and administration, where appropriate. This change process necessary for implementing a fit-for-purpose approach to land administration can start today.

A key demand, of course, relates to developing the necessary capacity for building and running the systems. Another demand is about establishing the budgetary base, e.g. through development aid support such as through the World Bank. And, most importantly, there is a fundamental requirement for strong political will and leadership. However, recent experiences show that it is possible – Rwanda, for example, has covered the whole country using a fit-for-purpose approach within 5 years and for a cost of around 6 USD per parcel/spatial unit (FIG/WB, 2014).

The fit-for-purpose approach is participatory and inclusive – it is fundamentally a human rights approach. Further benefits relate to the opportunity of building appropriate systems within a relatively short time and for relatively low and affordable costs. This will enable political aims such economic growth, social equity and environmental sustainability to be better supported, pursued and achieved.

#### **4. BUILDING THE SPATIAL FRAMEWORK**

The spatial framework is the basic large scale mapping showing the way land is divided into spatial units (such as parcels and plots) for specific use and occupancy. It provides the basis for dealing with land administration functions such as: recordation and management of legal and social tenure; assessment of land and property value and taxation; identification and management of current land use; planning for future land use and land development; delivery of utility services; and administration and protection of natural resources (see Figure 2 above).

In many developed regions of the world this countrywide spatial framework has been developed over about two centuries as large scale cadastral mapping and maintained through property boundary surveys conducted to a high accuracy according to long standing regulations and procedures. When considering the resources and capacities required for building spatial frameworks in less developed countries, the

concepts predominantly used in developed countries should be seen as the end target, but not as the point of entry. Using such advanced technical standards of adjudication, boundary marking and field surveys are far too costly, too time consuming and capacity demanding, and in most cases simply not relevant, for providing an initial suitable spatial framework. The focus should therefore be on methods that are fast, cheap, complete, and reliable. The spatial framework can then be upgraded and updated whenever necessary or relevant in relation to land development and management activities. Also, the framework may well include volunteered information provided by citizens (crowd sourcing) where authoritative data are not required or available (McLaren, 2013).

In relation to UN-HABITAT's concept of the continuum of land rights, such a fit-for-purpose approach to building the spatial framework could be referred to as a "continuum of accuracy". The key focus should be on providing secure tenure for all, and managing the use of land and natural resources for the benefit of local communities and society as a whole. The fit-for-purpose approach for providing the spatial framework can be outlined in four key principles (Enemark, 2013, FIG/WB, 2014):

- **General boundaries rather than fixed boundaries.** Using general boundaries to delineate land areas will be sufficient for most land administration purposes especially in rural and semi-urban areas.
- **Aerial imageries rather than field surveys.** The use of high resolution satellite/aerial imagery is sufficient for most land administration purposes. This approach is three to five times cheaper than field surveys.
- **Accuracy relates to the purpose rather than technical standards.** Accuracy of the land information should be understood as a relative issue related to the use of this information.
- **Opportunities for updating, upgrading and improvement.** Building the spatial framework should be seen in a perspective of opportunities for on-going updating, sporadic upgrading, and incremental improvement whenever relevant or necessary for fulfilling land policy aims and objectives.

The process for providing the spatial framework will include the following steps: (i) Producing the aerial imagery at scales according to topography, land use, and building density; (ii) Using the aerial imagery in the field to identify, delineate and adjudicate parcel boundaries (general boundaries), which can be drawn directly on the imagery and the parcels be numbered for reference to the connected land rights (see Figure 4); (iii) The resulting boundary framework can be digitised from the imagery to create a digital cadastral map to be used as a basic layer in the land information system or in combination with the satellite imagery.

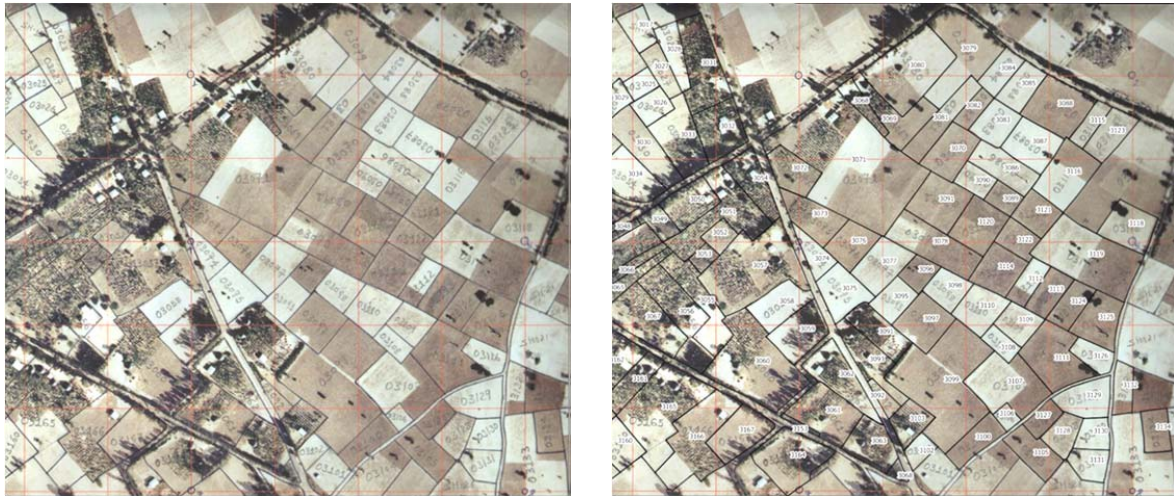


Fig. 4. Building the spatial framework. Left: Aerial imagery used as a field work map sheet with a georeferenced grid. The map shows the delineated parcel boundaries and parcel identification numbers. Right: Vectorised field map showing the resulting cadastral map with parcel boundaries and cadastral numbers. Source: Zerfu Hailu, Ethiopia.

Any boundary disputes can be resolved during the adjudication process where all relevant stakeholders are present – or a special administrative body (rather than judicial) may be established for this purpose. In the longer term, boundary disputes relate to the way the boundary was determined when established in the system. It is therefore important to store the relevant map information in archives for this purpose.

## 5. BUILDING THE LEGAL FRAMEWORK

In most less developed countries the legal framework for land administration reflects colonial times and often serves only the elite. The processes for land registration are complex, costly, time consuming and with high demands for accuracy of boundary surveys and often unnecessary legal interventions by notaries, lawyers and the court.

**A flexible framework designed along administrative rather than judicial lines.** The existing legal framework is often a significant barrier for implementing a flexible approach to building land administration systems and the underlying spatial framework as described above. So, as well as the spatial framework, the legal framework needs to be flexible and should be designed along administrative rather than judicial lines. The legal framework and its institutions must support both legal and social tenure and ensure that flexibility is enshrined in the laws in order to support a fit-for-purpose approach.

**A continuum of tenure rather than just freehold.** It is recognized that the legal frameworks as used in developed countries do not serve the millions of people whose tenures are predominantly social rather than legal. This relates to the Continuum of Land Rights where the range of possible forms of tenure is considered as a continuum. Each continuum provides different sets of rights and degrees of security and responsibility and enables different degrees of enforcement (UN-HABITAT, GLTN 2008). This continuum does not imply that all societies will or should necessarily develop into freehold tenure systems. Importantly, the continuum of land rights indicates, that each step in the process can be formalized, with registered freeholds offering a stronger protection, than at earlier stages.

There is a gap in the conventional land administration systems such that customary and informal tenure cannot be easily handled. There is a need for complimentary approaches in land administration. The concept of the Social Tenure Domain Model is to bridge this gap by providing a standard for representing ‘people – land’ relationships independent of the level of formality, legality and technical accuracy. The concept is flexible and enables all legal and social tenure rights to be captured (UN-HABITAT, GLTN, 2014). The STDM is a sub-version of the new ISO standard on Land Administration Domain Model (ISO 19152, 2012) that presents a generic and inclusive solution as a way forward for building flexible land administration systems.

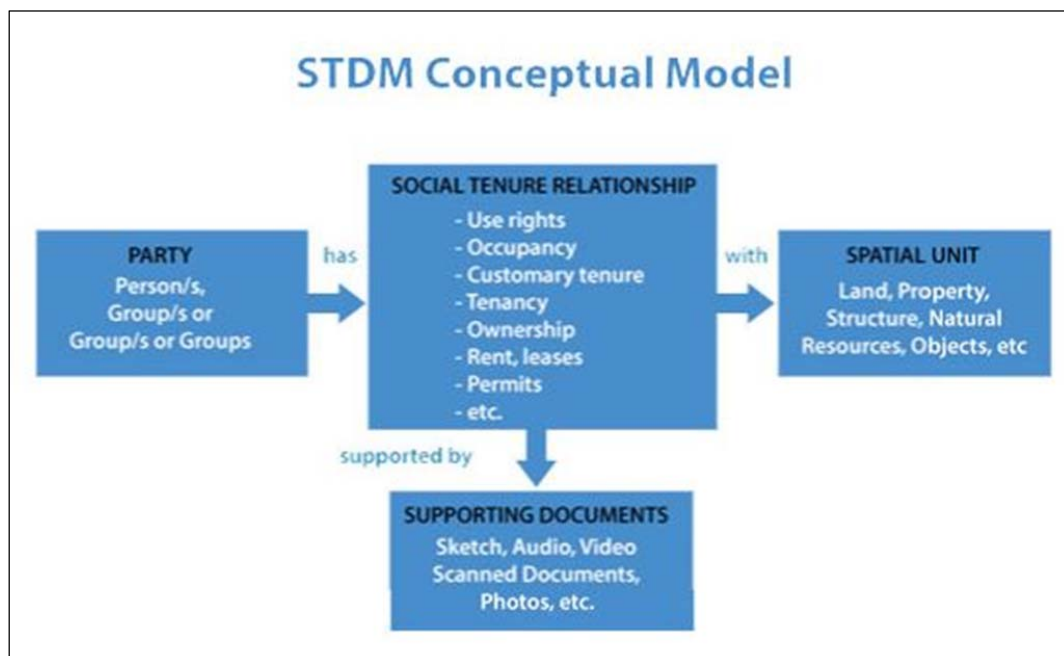


Figure 6. The STDM Conceptual model (UN-HABITAT, GLTN, 2014)

**Flexible recordation rather than only one register.** The Fit-For-purpose Approach will require a flexible recordation system. This issue is well analyzed in the GLTN publication “Designing a land records system for the poor” (GLTN, 2012b). The global land community has accepted that individual land titling on its own cannot deliver security of tenure to the majority of people in the world and that countries need to adopt a continuum of land rights. Any country adopting a continuum of land rights at scale will need to introduce innovative land administration systems like a pro-poor land recordation system. Such a system does not exist in isolation from the political system. So, to ensure tenure for the poor, poor people need to be linked to, and mobilized around, the land record’s office. This means that both political understanding and political will by the community and its leaders needs to become part of the system design and implementation (ibid., p 30).

**Ensuring gender equity for rights in land.** Many women are doubly disadvantaged: by poverty and by gender. Women make up at least half the world’s population but two thirds of the world’s poor. In many places, national laws, social customs and patriarchal tenure systems prevent many from holding rights to land. In sub-Saharan Africa, for example, just 2–3 per cent of the land is owned by women (UN-HABITAT, GLTN, 2012a). Women’s access to land needs first and foremost to be seen as a universal human right, independently of any other arguments in favor of it. Gender equity is also embedded in the UN Development Goals proposed by the High Level Panel where Goal 2c states “Ensure equal right of women to own and inherit property ... “. (UN, 2012, p.34). The legal framework should ensure secure tenure for all – including women and vulnerable people.

## **6. BUILDING THE INSTITUTIONAL FRAMEWORK**

The institutional framework is about the organizational structures and establishing efficient, accountable government workflow for making the systems operational. A flexible and holistic institutional framework should enable ongoing improvement of government services that could be termed “Continuum of services”.

**Holistic institutional framework rather than sectorial siloes.** Sound land management requires operational processes for implementing land policies in comprehensive and sustainable ways. The four functions of land tenure, land value, land use and land development interact to ensure the proper management of rights, restrictions, and responsibilities in relation to property, land and natural resources. Many countries, however, tend to separate land tenure rights from land-use opportunities, thereby undermining their capacity to link planning and land-use controls with land values and the operation of the



land market. These problems are often compounded by poor administrative and management procedures that fail to deliver required services. Investment in new technology will only provide limited solutions in the major task of solving a much deeper problem, namely the failure to treat land and natural resources as a coherent whole.

**Good and transparent land governance rather than bureaucratic barriers.** Governments are expected to work within the principles of good governance and the rule of law. Governance refers to the manner in which power is exercised by governments in managing a country's social, economic, and spatial resources. It simply means: the process of decision-making and the process by which decisions are implemented. Good land governance is then about the policies, processes and institutions by which land, property and natural resources are managed transparent and sustainably. The concept of governance includes formal as well as informal actors. The term "Good Governance" includes a number of characteristics for government to be: Sustainable and locally responsive; legitimate and equitable; efficient, effective and competent; transparent, accountable and predictable; participatory and providing security and stability; and dedicated to integrity (FAO, 2007).

**Flexible IT-approach rather than high-end technology solutions.** Clear descriptions of work processes, in terms of activities, requirements and responsibilities are necessary for facilitating and controlling an organization's performance as well as for monitoring and accountability. Such clear descriptions also offer opportunities to identify and abolish inefficiencies. There should be a good understanding of the 'information infrastructure', before entering to the issue of 'ICT-architecture'. Alternatives, such as open source solutions should be considered, e.g. the UN-FAO Open Source Cadastre and Registration Software (SOLA).

**Transparent land information with access for all.** The FAO voluntary guidelines on "Responsible Governance of Tenure", (FAO, 2012) place tenure rights in the context of human rights. Tenure rights and their governance are important for the realization of human rights, such as the rights to adequate food and to adequate housing. The Guidelines represent a global consensus on internationally accepted principles and standards for responsible practices. They provide a framework that States can use when developing their own policies, legislation and programs. With the help of the Guidelines actors can determine whether their proposed actions and the actions of others constitute acceptable practices. These Guidelines must be embedded in the institutional framework supporting a Fit-For-Purpose Approach to Land Administration.

## **7. CONSTRAINTS AND OPPORTUNITIES**

The discussion on building fit-for-purpose land administration systems includes a range of issues where some of these are clearly political while others relate to social equity, economic constraints, or professional standings. With reference to (FIG/WB 2014) some of the key questions are briefly touched upon below.

**“Why should less developed countries not have the same high level spatial framework (or cadastral systems) as is common practice in developed countries”?** The response to this question mainly relates to the fact that the framework in most developed countries is developed over about two centuries and in response to societal, institutional and technological developments. Building the systems in less developed countries should be in response to current societal needs and available economic resources. The systems can then be incrementally improved over time in response to societal development.

**What are the key constraints and barriers for adoption of fit-for-purpose approaches?** Constraints and barriers are often perceived to be political constraints, colonial legacy, lack of basic financial resources, and even lack of political will. This is compounded by a legal framework with rigid regulations that does not allow for a more flexible approach. Furthermore, the land professionals will often try to protect some vested interests embedded in their professional codes and they resist change.

**What are the key benefits?** Experience shows that a fit-for-purpose approach is adopted mainly when there is strong political leadership for change in support of secure land rights for all. Benefits arise by achieving a functional system covering all land and people within a short time, for relatively low and affordable costs, and supporting incremental improvement when relevant and required. This again will enable achievement of political aims and objectives in relation to economic growth, social and gender equity, and environmental sustainability.

**What are the opportunities for Land Professionals?** Even if the land professionals may to some extent be reluctant to comply with this kind of fit-for-purpose approach, it actually offers a range of opportunities. Firstly, the land professionals will obtain an increased client base by being able to serve the total population rather than only the elite. Furthermore, the approach implies that land professionals will undertake a more managerial role in relation to managing and using the land related data rather than just creating them. The land professionals will become custodians of such countrywide systems and will enhance their professional status by contributing to societal development.

## 8. FINAL REMARKS

A wide range of initiatives under the umbrella of the Global Land Agenda are delivering: voluntary guidelines on responsible governance of tenure (FAO, 2012); effective approaches to creating land policy frameworks (AU, ADB, UNECA, 2009); monitoring and evaluation tools to strengthen land policies and associated operations (World Bank, 2011); and tools for implementing land administration solutions (UN-HABITAT/GLTN, 2012a). However, despite these interventions progress is limited, and will remain restricted, due to the lack of comprehensive information on the evidence of land rights and associated security of tenure. Although policy frameworks and guidelines are essential for good land governance, the real bottleneck is in how Land Professionals capture and maintain evidence of land rights. Current solutions are not scalable, even with new emerging generations of technology solutions, and will never realistically deliver security of tenure to the remaining 75 percent of the world's population in appropriate timeframes.

This current security of tenure vacuum restricts access to formal land markets, severely limits engagement with economic development and is increasingly generating social instability through land disputes and land grabbing. Without access to land and security of tenure, the poor and the disadvantaged will remain trapped in poverty. This fit-for-purpose approach being proposed here offers land professionals the opportunity to make a significant improvement in global land issues. It is a realistic, participatory approach that is scalable and could make a noticeable difference in the intermediate timeframe. However, this is potentially a controversial paradigm shift for land professionals as it implies a radical change in role for the profession; a transition from a field operational to a management role.

As with all cultural and behavioral change, it has to be well managed. Otherwise opposition to change will stop this paradigm shift happening or, equally as bad, slow the process down. Ensuring advocacy for change and providing support to change management is a key role for organizations like the World Bank, UN-FAO, UN-HABITAT, FIG and other land related professional bodies (FIG/WB, 2014).

It is hoped that this Fit-For-Purpose approach will pave the way forward towards implementing sustainable and affordable land administration systems and enabling security of tenure for all and effective management of land use and natural resources. This is fundamental for meeting the Post 2015 Global Agenda, and, in turn, such Fit-For-Purpose Land Administration systems will facilitate economic growth, social equity, and environmental sustainability.

## REFERENCES

- AU, ADB, UNECA (2009): Framework and Guidelines on Land Policy in Africa.  
<http://rea.au.int/en/sites/default/files/Framework%20and%20Guidelines%20on%20Land%20Policy%20in%20Africa.pdf>
- Enemark, S. (2014a): Global Agenda for Sustainable Development. Geospatial World, April 2014, pp 24-32. [www.geospatialworld.net/Magazine/MArticleView.aspx?aid=30949](http://www.geospatialworld.net/Magazine/MArticleView.aspx?aid=30949)
- Enemark, S. (2014b): Fit-For-Purpose Land Administration. Presentation at GLTN/FIG CoFLAS Validation Workshop, 15 – 16 October 2014, Bangkok, Thailand.
- Enemark, S. (2013): Fit-for-purpose: Building Spatial Frameworks for Sustainable and transparent Land Governance. Proceedings of Word Bank Conference on Land and Poverty, D.C., 8-11 April 2013.  
[http://www.conftool.com/landandpoverty2013/index.php?page=browseSessions&form\\_session=21&presentations=show](http://www.conftool.com/landandpoverty2013/index.php?page=browseSessions&form_session=21&presentations=show)
- Enemark, S., Wallace, J. and Williamson, I. (2005): Building Modern Land Administration Systems in Developed Economies. Journal of Spatial Science. Perth, Australia. Vol. 50 No 2, pp 51-68.  
<http://www.csdila.unimelb.edu.au/publication/journals/Building%20Modern%20Land%20Administration%20Systems%20in%20Developed%20Economies.pdf>
- FAO (2012): Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of Food Security. Rome.  
<http://www.fao.org/docrep/016/i2801e/i2801e.pdf>
- FAO (2007): Good governance in land tenure and administration. FAO Land Tenure Studies No 9. Rome.  
<ftp://ftp.fao.org/docrep/fao/010/a1179e/a1179e00.pdf>
- FIG/WB (2014): Fit-For-Purpose Land Administration. FIG Publications No 60, FIG Office, Copenhagen.  
<http://www.fig.net/pub/figpub/pub60/figpub60.htm>
- ISO (2012). ISO 19152:2012, Geographic Information - Land Administration Domain Model. Edition 1, Geneva, Switzerland. [http://www.iso.org/iso/catalogue\\_detail.htm?csnumber=51206](http://www.iso.org/iso/catalogue_detail.htm?csnumber=51206)
- McLaren, R. (2012). Crowdsourcing Support of Land Administration. Paper presented at Word Bank Conference on land and Poverty, Washington D.C., 23 - 26 April 2012.  
[http://www.landandpoverty.com/agenda/pdfs/paper/mclaren\\_robin\\_paper.pdf](http://www.landandpoverty.com/agenda/pdfs/paper/mclaren_robin_paper.pdf)
- UN (2014): The millennium Development Goals Report 2014.  
<http://www.un.org/en/development/desa/publications/mdg-report-2014.html>
- UN (2013): A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development. [http://www.un.org/sg/management/pdf/HLP\\_P2015\\_Report.pdf](http://www.un.org/sg/management/pdf/HLP_P2015_Report.pdf)

UN (2012): Realizing the Future We Want for All. New York.

[http://www.un.org/millenniumgoals/pdf/Post\\_2015\\_UNTTreport.pdf](http://www.un.org/millenniumgoals/pdf/Post_2015_UNTTreport.pdf)

UN (2000): United Nations Millennium Declaration. Millennium Summit, New York, 6-8 September 2000. UN, New York. <http://www.un.org/millennium/declaration/ares552e.pdf>

UN-HABITAT (2012): State of the World's Cities 2102/13. Nairobi.

<https://sustainabledevelopment.un.org/content/documents/745habitat.pdf>

UN-HABITAT, GLTN (2014): The Social Tenure Domain Model. <http://www.stdm.glt.net/>

UN-HABITAT, GLTN (2012a): Handling Land – Innovative Tools for Land Governance and Secure Tenure. Nairobi. <http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3318>

UN-HABITAT, GLTN (2012b): Designing a Land Records Systems for the Poor. Nairobi.

[http://www.glt.net/jdownloads/GLTN%20Documents/3319\\_alt.pdf](http://www.glt.net/jdownloads/GLTN%20Documents/3319_alt.pdf)

UN-HABITAT, GLTN (2008): Secure Land Rights for All.

<https://www.responsibleagroinvestment.org/sites/responsibleagroinvestment.org/files/Secure%20land%20rights%20for%20all-UN%20HABITAT.pdf>

Williamson, Enemark, Wallace, Rajabifard (2010): Land Administration Systems for Sustainable Development. ESRI Academic Press, Redlands, California, USA. <http://www.esri.com/landing-pages/industries/land-administration/e-book#sthash.Lp4BYcKW.vmY1XWxG.dpbs>

World Bank (2011): Land Governance Assessment Framework. Washington, [http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2011/11/24/000386194\\_20111124011109/Rendered/PDF/657430PUB0EPI1065724B09780821387580.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2011/11/24/000386194_20111124011109/Rendered/PDF/657430PUB0EPI1065724B09780821387580.pdf).

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